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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/885,311      | 06/20/2001  | Bryan Patrick Livengood | LE9-99-015          | 4577             |

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EXAMINER

RODEE, CHRISTOPHER D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1756

DATE MAILED: 04/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/885,311

Applicant(s)

LIVENGOOD ET AL.

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-22 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Response to Amendment***

The amendment filed 24 February 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The material which is not supported by the original disclosure is as follows: the change in description of the term "random copolymer" on specification page 12. The specification as originally filed stated, "Random copolymers lie within these two extremes" of alternating copolymers and block copolymers. By removal of this statement applicants are changing the description of their invention to now include alternating copolymers within the scope of random copolymers. The change in the passage spanning pages 14 and 15 similarly changes the description of random copolymers. This passage presented the concept that domains of a monomer are permitted within the scope of a random copolymer, but by amendment this disclosure has been removed. The concept of a random copolymer is changed by these amendments. Note the comments concerning the rejection over Crystal that appear to agree that the scope of "random" in the claims is changed by these amendments (response p. 5, bottom).

Applicant is required to cancel the new matter by reinserting the deleted phrases in the reply to this Office Action.

***Claim Rejections - 35 USC §§ 102 & 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 1, 3-9, 11, 12, 14, 21, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin in US Patent 5,955,235.

This rejection was presented in the last Office action. Because of the amendments to the specification it appears that a pure alternating copolymer compatibilizer, such as shown by Lin, is included within the scope of the claims. Applicants acknowledge that Lin's copolymer is indeed "a regularly alternating copolymer of olefin component and imide component". Applicants also are understood to state that any ambiguity about the specification disclosure "negating regularly alternating copolymers" as random copolymers is removed. It is unclear if this means that the regular alternating copolymers are included or excluded within the scope of the claims. Based on the specification amendments it appears that they are indeed included within the scope of the rejected claims. Clarification in the written response may prove useful.

Claims 1, 3-10, 12, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Crystal in US Patent 4,027,048.

Claims 1, 3-10, 12-18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crystal in US Patent 4,027,048 in view of Katada *et al.* in US Patent 5,972,553 and further in view of Sato *et al.* in US Patent 5,985,501.

Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crystal in US Patent 4,027,048 in view of Katada *et al.* in US Patent 5,972,553 and further in view of Sato *et al.* in US Patent 5,985,501 as applied to claims 1, 3-10, 12-18, and 20-22 above, and further in view of Mahabadi *et al.* in US Patent 5,364,724.

Applicants traverse these rejections because the term shaded modifying random copolymer in Crystal "is a contradiction and therefore has no meaning at all." The shaded

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nature of the copolymer in Crystal means to applicants that it is not a random copolymer. This is emphasized by the specification amendments.

In response the Examiner again notes that Crystal states that the dispersing agent copolymer is a random copolymer. In column 4, lines 33+ Crystal states that dispersing agent may take the form of a block copolymer, a graft copolymer, or a shaded random copolymer. Note that the block copolymer and shaded random copolymer are alternatives. Clearly the shaded random copolymer is different from a block copolymer in Crystal.

Crystal shows that one of ordinary skill considers a shaded polymer as a random copolymer, not a block copolymer and not a graft copolymer. There is some "randomness" in the manner in which the copolymer units assemble during the polymerization process even though there is more of one monomer unit at one end of the copolymer and more of the other monomer unit at the other end. Crystal's shaded copolymer is a random copolymer -- the reference states this explicitly. The language of the reference cannot be discounted as attempted by applicants.

The specification as filed (i.e., without the amendments objected to under § 132) would also lead the artisan to consider the reference's shaded copolymer to be between a block copolymer and an alternating copolymer. The specification as filed states that the random copolymers fall within this area. Thus Crystal and the as filed specification are consistent in there teaching that a shaded copolymer is within the scope of a random copolymer.

The section 103 rejections are traversed on the same basis as the section 102 rejections. Lacking any specific traversal concerning the propriety of combination or motivation, the Examiner will rely on the comments above concerning Crystal as applicable to these rejections as well.

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Given the fact that the Crystal reference states that its shaded copolymer is a random copolymer and given that the specification as filed permitted shaded random copolymers within the scope of random copolymers, the rejections must be retained.

***Allowable Subject Matter***

Claim 30 is allowed.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.



**CHRISTOPHER RODEE**  
**PRIMARY EXAMINER**

cdr  
April 4, 2003